

UNITED STATES DEPARTMENT OF AGRICULTURE
BUREAU OF ENTOMOLOGY
FOREST INSECT INVESTIGATIONS

INSECT SURVEY OF THE ROCK CREEK DRAINAGE
MISSOULA NATIONAL FOREST

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November 27, 1928

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During the latter part of July, 1928, an extensive insect survey was made of the southern portion of the Missoula National Forest. The purpose of this survey, which was made by Messrs. England and Terrell, was to determine the present status of the mountain pine beetle infestation in lodgepole pine stands of that region. Inasmuch as at that time the 1928 attacks of these insects had not occurred, it was necessary to confine this survey to a record of the 1927 attack only. This record was secured by what is called a topographic survey, which consists in counting the red-topped trees from lookout points, ridges, etc. From such a survey it is impossible to secure an accurate count of the trees with discolored foliage, as ridges, tall trees, etc., eliminate from view portions of each area, and it is also very difficult to determine the exact number of trees when they occur in large groups. However, the number counted is invariably below the actual number which exists, and as there are sufficient 1927 attacked trees within these areas to indicate the seriousness of the situation, no attempt has been made to correct the data secured. However, from time to time sample strips were run for the purpose of checking the counts of red-topped trees which, as stated, was also found to be lower than the actual number existing.

A brief tabulation of the drainages viewed follows.

ROCK CREEK DRAINAGE

<u>Area</u>	<u>Red-Tops</u>	<u>Area</u>	<u>Red-Tops</u>
Gilbert Cr.	295	Williams	122
Sawmill	--	Stony	1,000
Bobcat	7,000	Between Stony and West Fork	500
Ranch	6,000	--	--
Welcome & Cinnabar	30,000	West Fork	Very few
Cinnamon	20,000	Between the W. Fork Rock Creek	5,000
Between Cinnamon and Wehlquist	12,500	Between Moose, Meadow & Senate Creeks	7,200
Butte Cabin	1,250	Copper Creek and Frog Pond	177,000
Alder	76	Meadow Creek	Light
Cougar	255	Upper Willow	25,000
Little Hogback	5,000	Lower Willow	42,000
Hudson Pillar	--	Quigg Peak	164
Eagle	43		
Big Spring	104		
Sandstone Ridge	35,000		
Wyman	600		

Number of trees attacked 1927 - 376,109

Though the number of 1927 attacked trees, or red-tops, actually counted is sufficiently startling, it must be remembered that this loss represents the 1927 attack only. Due to the marked increase which occurred during the past season in other areas, as well as the fact that a fairly large per cent of the 1927 attacked trees were missed during this survey, it can safely be assumed that the 1928 attack will be a great deal larger than the 1927. To estimate the extent of such an increase is, of course, very difficult, but one could rest assured that there are at least 1,000,000 trees which were attacked by the mountain pine beetle during the 1928 season.

The source of this infestation is equally as difficult to determine. The writer feels that the heavy blocks of infestation on the Copper Creek drainage no doubt came from the Bitterroot drainage, but that the condition within the Willow Creek drainage no doubt occurred from the southern spread of the infestation which existed in the northern portion of the Missoula Forest.

The thoughts of control seem nearly as prohibitive for this region as for the Bitterroot or Beaverhead. There can be no question but that the infestation on the Bitterroot is spreading into the Rock Creek drainage, and in any thoughts of control for this area an annual reinestation over an indefinite period of years must be considered. Under our present knowledge of like situations, the institution of control measures within the Rock Creek drainage would be not only a very uneconomical operation, but one which would be entomologically unsound.

Control measures are therefore not recommended, but it is believed that the immediate sale of any timber within this drainage would be a justifiable action.

Respectfully submitted,

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